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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/540,606

06/27/2005

Toshiaki Takenaka

MAT-8716US

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23122 7590 08/13/2009
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EXAMINER

TALBOT, BRIAN K

ART UNIT

PAPER NUMBER

1792

MAIL DATE

DELIVERY MODE

08/13/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/540,606	Applicant(s) TAKENAKA ET AL.	
	Examiner Brian K. Talbot	Art Unit 1792	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 July 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5,8-16,23-25 and 27-35 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5,8-16,23-25 and 27-35 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 7/6/09 has been entered.

2. Claims 6,7,17-22 and 26 have been canceled. Claims 1-5,8-16,23-25 and 27-35 remain in the application.

3. In light of the amendment filed 8/12/09 the 35 USC 112 first paragraph rejection has been withdrawn.

Claim Rejections - 35 USC § 103

4. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

5. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. Claims 1-5,7-16,23,24 and 26-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takenaka et al. (JP 2001-213,064) in combination with Kuroki et al. (JP 57-103862).

Takenaka et al. (JP 2001-213,064) teaches a printing plate and printing method whereby a process comprises passing a squeegee onto an inclined part of a paste removing part (3) provided on a mask (2) before the printing pattern or paste filling (abstract and fig. 1).

Takenaka et al. (JP 2001-213,064) fails to teach an elevation around the depressions for removal of the paste from the squeegee.

Kuroki et al. (JP 57-103862) teaches a screen printing plate for filling conductor whereby the solid metal screen having a concavo-convex pattern formed at a side where a squeegee starts to move, of a periphery of a printing pattern of the screen printing plate (abstract and Figs. 4,5).

Therefore it would have been obvious for one skilled in the art at the time the invention was made to have modified Takenaka et al. (JP 2001-213,064) process by including “elevations”

Art Unit: 1792

along with the depressions as evidenced by Kuroki et al. (JP 57-103862) with the expectation of achieving a more complete removal of the excess paste from the squeegee.

Features detailed above concerning Takenaka et al. (JP 2001-213,064) and Kuroki et al. (JP 57-103862) are incorporated here.

Takenaka et al. (JP 2001-213,064) and/or Kuroki et al. (JP 57-103862) fail to teach masking both sides (claim 2), forming the groove (cleaning part) (claims 8-12,27-31) and the compositional make-up of the substrate having the holes to be filled (claims 13-15,32-34).

While the Examiner acknowledges the references are silent with respect to these limitations, it is the Examiner's position that these are all "result effective variables" which are within the skill of one practicing in the art and would have been an obvious modification of the art absent a showing of unexpected results garnered directly from the claimed limitations.

No such showing has been supplied to support that the shape of the hole cleaning part, the method of producing the hole cleaning part or the substrate to which the paste is supplied has any criticality to producing the expected result, i.e. cleaning paste material from the squeegee as it passes. Upon such a showing, the Examiner will reconsider his position.

7. Claims 6 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takenaka et al. (JP 2001-213,064) in combination with Kuroki et al. (JP 57-103862) further in combination with Kozo et al. (JP 2001-7514).

Features detailed above concerning Takenaka et al. (JP 2001-213,064) in combination with Kuroki et al. (JP 57-103862) are incorporated here.

Art Unit: 1792

Takenaka et al. (JP 2001-213,064) in combination with Kuroki et al. (JP 57-103862) fail to teach a plurality of holes (squeegee cleaning parts).

Kozo et al. (JP 2001-7514) teaches production of wiring board whereby through holes (3) are filled with paste (10) while dummy area holes (9) surround the printing area (2) having the through holes (3).

Therefore it would have been obvious for one skilled in the art at the time the invention was made to have modified (a) Kuroki et al. (JP 57-103862) alone or (b) Takenaka et al. (JP 2001-213,064) in combination with Kuroki et al. (JP 57-103862) printing plate to include a plurality of holes as evidenced by Kozo et al. (JP 2001-7514) with the expectation of achieving similar success, i.e. removing paste from squeegee.

Response to Amendment

8. Applicant's arguments filed 7/6/09 have been fully considered but they are not persuasive.

9. Applicant argued that the prior art fails to teach depression with an elevation portion around them.

The rejection of Takenaka et al. (JP 2001-213,064) in combination with Kuroki et al. (JP 57-103862) teach methods of removing excess paste from a squeegee including depressions and “elevated” portions and it would have been within the skill of one practicing in the art to have

Art Unit: 1792

combined these two teaching to form a “more complete” removal of the excess paste from the squeegee.

As for the advantages, detailed in the response filed 7/6/09, pg. 9, associated with the claims depressions and elevations surrounding the periphery, the combination of prior art teaches this same advantage of removing paste from the squeegee.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian K. Talbot whose telephone number is (571) 272-1428. The examiner can normally be reached on Monday-Friday 8AM-4PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner’s supervisor, Timothy H. Meeks can be reached on (571) 272-1423. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Brian K Talbot/
Primary Examiner, Art Unit 1792

Application/Control Number: 10/540,606

Page 7

Art Unit: 1792

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